



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/552,152

10/07/2005

Takayasu Taniguchi

053170

9203

38834

7590

09/10/2008

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP

1250 CONNECTICUT AVENUE, NW

SUITE 700

WASHINGTON, DC 20036

EXAMINER

HAND, MELANIE JO

ART UNIT

PAPER NUMBER

3761

MAIL DATE

DELIVERY MODE

09/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/552,152

Applicant(s)

TANIGUCHI ET AL.

Examiner

MELANIE J. HAND

Art Unit

3761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Arguments

2. Applicant's arguments, see Remarks, filed July 24, 2008, with respect to the rejection(s) of claim(s) 1-9 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art references.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1-4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trouilhet (U.S. Patent No. 5,750,611) in view of Balkus et al (U.S. Patent No. 5,167,942).

With respect to **claim 1**: Trouilhet discloses a water-absorbing resin compound in the form of a thermoplastic composition which comprises a water-absorbing resin and a porous material in the form of a zeolite molecular sieve. The water-absorbing resin is a cross-linked copolymer of ethylene and acrylic acid salt formed by neutralization of the acid with an alkali metal ion, i.e. a cross-linked polymer of an acrylic acid salt. (Col. 6, lines 3-11)

Trouilhet discloses a porous material but does not disclose that the porous material incorporates an antibacterial metal or an antibacterial agent having the porous material and a metal chelating agent. Balkus discloses a zeolite molecular sieve incorporating an antibacterial metal, namely copper (Col. 14, line 62) The antibacterial agent also has a metal chelating agent in the form of a multidentate hydrocarbon structure. (Col. 4, lines 4-11) Since both Trouilhet and Balkus disclose molecular sieves for the purpose of either adsorption by the sieve in a composition, or absorption by the composition, they seek to solve a similar problem in the art (i.e. collect and trap fluids which can create bad odors). Therefore, it would be obvious to one of ordinary skill in the art to modify the composition of Trouilhet by replacing the sieve with the molecular sieve disclosed by Balkus with a reasonable expectation of success to preserve the ability of the composition to adsorb and absorb fluids which can cause odor or contain bacteria or other microbes.

With respect to **claim 2**: The content of the antibacterial agent disclosed by Trouilhet as modified by Balkus is 0.5 – 30.0 parts by weight with respect to 100 parts by weight of the composition, whereas the resin is the remainder of the composition, or 70-95.5 parts by weight with respect to 100 parts composition. Thus the agent is $(0.5-30)/(70-95.5)$, or 0.5-42.9 parts by weight with respect to 100 parts by weight of the resin, which overlaps and renders obvious the

Art Unit: 3761

claimed range of 0.001-1 parts by weight with respect to 100 parts by weight of the water-absorbing resin.

With respect to **claim 3**: the content of the antibacterial metal incorporated in antibacterial agent is 0.1-15 parts by weight with respect to 100 parts by weight of the porous material.

Claim 4 (original): The water-absorbing resin compound according to claim 1, wherein the content of the metal chelating agent is 0.01-10 parts by weight with respect to 100 parts by weight of the water-absorbing resin.

With respect to **claim 9**: The antibacterial agent disclosed by Balkus is a zeolite sieve incorporating an antibacterial metal and is thus an eluting-type as the term "eluting-type" is understood from applicant's specification.

5. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trouilhet (U.S. Patent No. 5,750,611) in view of Balkus et al (U.S. Patent No. 5,167,942) as applied to claim 1 above and further in view of Hosokawa et al (U.S. Patent No. 6,703,451).

With respect to **claims 5,6**: Trouilhet does not disclose a metal chelating agent. Balkus discloses a metal chelating agent that is a multidentate hydrocarbon structure and discloses several structures. ('942, Cols.13, 14, all lines) However, EDTA does not possess any of the structures disclosed, and thus Balkus does not disclose that the metal chelating agent is an aminocarboxylic acid or specifically that the chelating agent is EDTA. Hosokawa discloses a water absorbing resin composition comprising an absorbing resin, a metal and metal chelating

Art Unit: 3761

agent, namely EDTA ('451, Col. 7, line 19). The articles of Trouilhet and Balkus and Hosokawa seek to solve a similar problem in the art (i.e. provide an absorbent resin composition with a metal that may function as an antibacterial metal). Therefore, it would be obvious to one of ordinary skill in the art to modify the composition of Trouilhet as modified by Balkus such that the metal chelating agent is EDTA as disclosed by Hosokawa with a reasonable expectation of success to retain the antibacterial metal in place within the sieve to perform its intended function.

With respect to **claim 7**: Neither Trouilhet nor Balkus discloses an absorbent material comprising a hydrophilic fiber in addition to the instant water absorbent resin. Hosokawa teaches an absorbing material that comprises a water-absorbing resin and a hydrophilic fiber in the form of cellulosic fluff pulp. ('451, Col. 10, lines 45-48) The articles of Trouilhet and Balkus and Hosokawa seek to solve a similar problem in the art (i.e. provide an absorbent resin composition within an absorbent article). Therefore, it would be obvious to one of ordinary skill in the art to modify the article of Trouilhet as modified by Balkus such that the absorbing material containing the water absorbing resin composition also comprises a hydrophilic fiber as disclosed by Hosokawa with a reasonable expectation of success to enhance the liquid handling capability of the article.

With respect to **claim 8**: Neither Trouilhet nor Balkus discloses an absorbent material comprising a hydrophilic fiber in addition to the instant water absorbent resin. Hosokawa teaches an absorbing product, which comprises a liquid-permeable sheet; a liquid-non-permeable sheet; and an absorbing material comprising a water-absorbing resin compound according to the claimed invention and a hydrophilic fiber, wherein the absorbing material lies

Art Unit: 3761

between the liquid-permeable sheet and the liquid-non-permeable sheet. ('451, Col. 10, lines 41-48) The articles of Trouilhet and Balkus and Hosokawa seek to solve a similar problem in the art (i.e. provide an absorbent resin composition within an absorbent article). Therefore, it would be obvious to one of ordinary skill in the art to modify the article of Trouilhet as modified by Balkus such that the absorbing material containing the water absorbing resin composition also comprises a hydrophilic fiber as disclosed by Hosokawa with a reasonable expectation of success to enhance the liquid handling capability of the article.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELANIE J. HAND whose telephone number is (571)272-6464. The examiner can normally be reached on Mon-Thurs 8:00-5:30, alternate Fridays 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/552,152

Page 7

Art Unit: 3761

/Melanie J Hand/

Examiner, Art Unit 3761

/Tatyana Zalukaeva/

Supervisory Patent Examiner, Art Unit 3761